CLAIMS

1. An air duct for a motor vehicle air dryer comprising:

an outer shell having an inner surface;

a porous, fluid permeable lining on said shell inner surface, said lining defining an inner surface; and

a relatively rigid mesh interior of said lining retaining said lining in said shell.

2. An air duct as defined in claim 1 wherein said outer shell is fabricated from a material selected from the group consisting of stainless steel, aluminum, rigid plastic and glass fiber plastic.

3. An air duct as defined in claim 1 wherein said porous lining is open cell polyurethane foam.

4. An air duct as defined in claim 1 wherein said porous lining is rock wool.

5. An air duct as defined in claim 4 wherein said rock wool lining is retained by expanded glass fiber cloth mesh.

6. An air duct as defined in claim 1 wherein said relatively rigid mesh is selected from the group consisting of stainless steel mesh, galvanized steel mesh, painted steel mesh, aluminum mesh, and plastic mesh.

7. An air intake duct for a motor vehicle air dryer, comprising:

an outer cylindrical duct having an air inlet end and an air outlet end and defining an inner surface and a cylindrical longitudinally extending air passage having a center axis;

an intermediate sleeve removably positioned within said outer duct adjacent the inner surface thereof and comprising an inner rigid, expanded mesh cylindrical sleeve and an outer porous sleeve contained and supported on its inner surface by said mesh sleeve and having its outer surface engaging the inner surface of said outer cylindrical duct, said inner mesh sleeve having an inlet end and an outlet end corresponding to the inlet and outlet ends respectively of said outer duct;

annular end channels mounted at the inlet and outlet ends of said mesh sleeve for supporting said porous sleeve and having an outer radial dimension corresponding to the internal diameter of said outer duct for supporting said intermediate sleeve therein;

an inner longitudinally extending sleeve positioned coaxially in said intermediate sleeve, said inner sleeve having inner and outer spaced apart wire mesh sleeves defining an annular chamber;

an annular porous sleeve retained in said annular chamber;

end caps covering the ends of said inner sleeve; and

brackets extending between said end caps and said annular end channels supporting said inner sleeve on said intermediate sleeve;

said outer duct defining a plurality of perforations adjacent the inner end thereof forming intake air passages.

8. An air intake duct for a motor vehicle air drying apparatus comprising:

an outer cylindrical duct defining an inner surface;

a porous layer adjacent said duct inner surface and defining an inner surface;

an outer rigid expanded mesh lining said inner surface of said porous layer and retaining said porous layer;

an inner cylinder extending coaxially in said duct and having an outer surface spaced radially inwardly from said outer expanded metal mesh;

said cylinder comprising a porous layer defining an outer surface and an outer expanded metal mesh surrounding and supporting said cylinder porous layer and defining said outer surface of said inner cylinder.

9. An air intake duct as defined in claim 8 further comprising a plurality of radially extending brackets extending between said inner cylinder and said outer expanded mesh and supporting said inner cylinder in said duct.

10. An air intake duct as defined in claim 8 wherein said outer cylindrical duct defines a foraminous section adjacent its inlet end.

11. An air intake duct as defined in claim 10 further comprising a plate closing said inlet end below said foraminous section.

12. An air dryer for motor vehicles, comprising:

an air intake section;

a blower section mounting a motor driven fan;

a transition section; and

an outlet section having a plurality of discharge nozzles for directing air towards a motor vehicle for drying the same.

13. An air flow chamber wall for attenuating noise resulting from air flow turbulence, comprising:

a rigid wall formed of sheet material;

a layer of air permeable porous material on said wall material; and

an expanded rigid mesh material on said air permeable material layer.

14. A wall as defined in claim 13 wherein said rigid wall material is selected from the group consisting of stainless steel, aluminum and plastic.

15. A wall as defined in claim 13 wherein said air permeable material is open celled polyurethane foam.

16. A wall as defined in claim 13 wherein said air permeable material is rock wool.

17. A wall as defined in claim 13 wherein said rigid mesh is selected from the group consisting of stainless steel mesh, galvanized steel mesh, painted steel mesh, aluminum mesh and plastic mesh.

18. A method of attenuating the noise of air flow in the intake section of an air dryer for motor vehicles, comprising:

inserting into said intake section an outer layer of porous material and an inner layer of porous material spaced radially inwardly of said outer layer.

19. A method as defined in claim 18 further comprising supporting said layers of porous material with rigid, stiffly flexible, expanded mesh layers.

20. A method as defined in claim 19 further comprising supporting said layers of porous material and rigid expanded mesh layers with radial panels of porous material extending therebetween.

21. An air intake duct as defined in claim 7, further comprising a plate affixed to the outer duct below the intake air passages for closing the inlet end of said outer duct to prevent introduction of water thereinto.